

TINGTING WU, Ph.D.

Assistant Professor

Department of Civil and Environmental Engineering

The University of Alabama in Huntsville

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EDUCATION

University of Florida	Environmental Engineering Sciences	Ph.D., 2010
National University of Singapore	Chemical and Biomolecular Engineering	M.Eng, 2005
Tongji University, China	Environmental Engineering and Sciences,	B.Eng, 2001

PROFESSIONAL APPOINTMENTS

08/2014 - present	Assistant Professor , University of Alabama in Huntsville, Department of Civil and Environmental Engineering
02/2011- 08/2014	Postdoctoral Associate , University of Miami, Department of Civil, Architectural, and Environmental
08/2006 - 12/2010	Graduate Research Assistant , University of Florida, Department of Environmental Engineering Sciences
2005 - 2006	Environmental Engineer , Dasmart Environmental Technologies Co. Ltd, Beijing, China
2003 - 2004	Graduate Teaching Assistant , National University of Singapore, Department of Chemical and Biomolecular Engineering

RESEARCH INTERESTS

Sustainable water and wastewater treatment and reuse; advanced water treatment; stormwater and non-point source pollution control

PUBLICATIONS

A). *Refereed Journal Papers*

- Englehardt, J., **Wu, T.**, Bloetscher, F., Deng, Y., du Pisani, P., Eilert, S., Elmir, S., Guo, T., Jacangelo, J., LeChevallier, M., Leverenz, H., Mancha, E., Plater-Zyberk, E., Sheikh, B., Steinle-Darling, E., and Tchobanoglous, G. "Net-Zero Water Management: Achieving Energy-Positive Municipal Water Supply", *Environmental Science: Water Research & Technology*, accepted, 2016
- Wu, T.** and Englehardt, J. "Peroxone Mineralization of Chemical Oxygen Demand for Direct Potable Water Reuse: Kinetics and Process Control", *Water Research*, 73, 362-372 2015
- Guo, T., Englehardt J. and **Wu, T.** "Review of Cost versus Scale: Water and Wastewater Treatment and Reuse Processes", *Water Science and Technology*, 69 (2), 223-234, 2014
- Wu, T.** and Sansalone, J. J. "Phosphorus Equilibria II: Comparing Filter Media, Models and Leaching", *Journal of Environmental Engineering*, 139 (11), 1325-1335, 2013
- Wu, T.** and Sansalone, J. J. "Phosphorus Equilibria I: Impact of AlOx Media Substrates and Aqueous Matrices", *Journal of Environmental Engineering*, 139 (11), 1315-1324, 2013

- Englehardt J., **Wu, T.** and Tchobanoglous, G. “Urban Net-Zero Water Treatment and mineralization: Experiments, Modeling and Design”, *Water Research*, 47 (13), 4680-4691, 2013
- Wu, T.** and Sansalone, J. J. “Mass Transfer Kinetics of Phosphorus to Filter Media from Wastewater, Storm Water and Surrogate Matrices”, *Journal of Environmental Engineering*, 139 (1), 1-10, 2013
- Wu, T.** and Englehardt, J. “A New Method for Removal of Hydrogen Peroxide Interference in the Analysis of Chemical Oxygen Demand” *Environmental Science & Technology*, 46 (4), 2291-2298, 2012
- Loh, K-C and **Wu, T.** “Cometabolic Transformation of 2-Chlorophenol and 4-Chlorophenol in the Presence of Phenol by *Pseudomonas putida*”, *The Canadian Journal of Chemical Engineering*, 84 (3), 356-367, 2006

B). *Refereed Conference Proceedings and Abstracts*

- Wu, T.** and Englehardt, J. “Peroxone Mineralization of Non-biodegradable Organics for Direct Potable Water Reuse.” 19th Annual Water Reuse & Desalination Research Conference, Huntington Beach, CA, May 5-6, 2015
- Wu, T.** and Englehardt, J. “Urban Direct Potable Reuse of Commingled Black and Grey Water without Reverse Osmosis: Operation, Performance and Recommendations.” 18th Annual Water Reuse & Desalination Research Conference, Las Vegas, NV, May 19-20, 2014
- Wu, T.** and Englehardt, J. “Urban Ambient Net-Zero Water Treatment and Mineralization: System Design and Field Performance.” iiSBE Net Zero Built Environment 2014 Symposium, Gainesville, FL, March 06-07, 2014
- Sansalone, J., **Wu, T.**, Liu, B., Zhang, H., Liu, D., Zheng, T., and Berretta, C. (2013) Adsorptive-Filtration of Runoff Subject to Controlled and Uncontrolled Hydraulic and Water Chemistry Loadings. World Environmental and Water Resources Congress 2013: pp. 2924-2935.
- Englehardt, J. and **Wu, T.** “Urban Ambient Net-Zero Water Treatment and Mineralization: Laboratory, Modeling and Initial Field Data.” 17th Annual Water Reuse & Desalination Research Conference, Phoenix, AZ, May 06-07, 2013
- Englehardt, J. and **Wu, T.** “A Low-Energy Treatment Scheme for Autonomous Net-Zero Water Buildings.” Association of Environmental Engineering and Science Professors (AEESP) Education & Research Conference, University of South Florida, Tampa, FL, July 2011
- Wu, T.**, Gnecco, I., Berretta, C., Ma, J. and Sansalone, J.J. “Stormwater Phosphorus Adsorption on Oxide-Coated Media”, *Proceedings of the Water Environment Federation*, 2008: Session 91 through Session 100 , pp. 6945-6957(13), Chicago, IL, October 2008

TEACHING & MENTORING EXPERIENCE

08/2014 – present **Assistant Professor**

- Instructor:
 - CE 449/549 Introduction to Environmental Engineering
 - CE456/556 Water Quality Control Process
 - CE659 Advanced Wastewater Engineering
- Graduate students supervised:
 - Eman Alhamdan: Ph.D. student, Jan. 2015~present
 - Amir Ahmadi: Ph.D. student, Jan. 2016~present

02/2011 – 08/2014 **Postdoctoral Associate**

- Serve as a mentor and assist the instructor in developing 10 courses outlines
- Provide guidance, resources and supervision to graduate and undergraduate students
- Evaluate students' performance and provide feedback
- Mentored 2 high school students for summer intern project, 2013

2002 - 2003 **Teaching Assistant** (Particle Technology)

- Graded homework assignments and exams

INDUSTRIAL EXPERIENCE

2005 - 2006 **Dasmart Environmental Technologies Co. Ltd, Beijing, China**

Environmental Engineer. Carried out in-situ pilot study for upgrading CNPC Dalian's existing wastewater treatment plant using HYBAS process, a combination of Activated Sludge and Biofilm to achieve nitrification; contributed to water reclamation project of CNPC Dalian's 10,000 m³/d for circular cooling make-up water and boiler feed water, adopting BSFFR, DAF, UF and RO technologies.

ACADEMIC AWARDS

2002 - 2004 Graduate Fellowship, National University of Singapore, Singapore

1998 - 2001 Excellent Student Scholarship, Tongji University, China